

REMARKS

Rejections under 35 U.S.C. 102

In an office action dated January 20, 2007, the Examiner rejected claims 1 - 4 and 7-9 under 35 U.S.C. 102(b) as being anticipated by GB 2328196 A (the " '196 reference") assigned to the same Applicants as the current application. In the Office Action the Examiner held that this reference showed an apparatus for mooring a floating vessel over a seabed, comprising a partly submerged floating dock 13 with a thruster 21, a single point mooring system 10 and a rigid connecting member connecting the dock to the single point mooring system, wherein the dock is pivotally attached to the connecting member and a single point mooring system is attached to the seabed by a compliant anchoring system. The Examiner further held that the floating dock further comprises buoyancy means 19.

Rejections under 35 U.S.C. 103

The Examiner then rejected claims 5, 6 and 10 - 12 under U.S.C. 103(a) as being unpatentable over the same reference. The Examiner claimed the '196 reference shows a single point mooring vessel attached to the seabed as seen in figure 1 but does not expressly show the single point mooring vessel comprising a floating buoy or the buoy attached to the seabed by three equi-spaced anchor leg groups. Additionally, the single point mooring vessel does not show a winch mechanism. The Examiner took official notice that it is common and extremely well known in the art to provide a swiveling floating buoy known as a spider to pivotally moor a vessel such as the single point mooring vessel shown in Applicant's Fig. 1. Additionally, anchoring to the seabed by three spaced anchored groups was also officially noticed as common and well-known. Therefore the Examiner held that it would have been obvious for one skilled in the art at the time in the invention to provide a swiveling floating buoy with a single point mooring vessel as shown in the '196 reference so as to allow it to effectively weathervane without damaging the riser. The Examiner further stated it would have been obvious to attach to

buoy to the seabed by three equi-spaced anchor legs for achieving balance and effective anchoring. Which mechanisms were considered notoriously well known.

Applicant's Response

Applicant has carefully reviewed the arguments presented in the Office Action and respectfully requests reconsideration of the claims in view of the claim amendments and remarks presented below.

Claim 1

Independent claim 1, as amended recites an apparatus for mooring a floating vessel over a seabed, comprising a semi-submersible floating dock, a single point mooring system and a rigid connecting arm connecting the dock to the mooring system with the dock pivotally attached to the connecting arm and the mooring system attached to the seabed by compliant anchoring system.

GB 2328196 ("196")

This reference discloses an apparatus for transferring fluid between two floating vessels [10,11] such as two ships or an oil rig and a ship including a transfer apparatus 12 consisting of a rigid transfer arm 13 pivotally attached by means 17 to the first structure for pivotal movement about at least two axes. The arm 13 may be formed of three longitudinal members 14 arranged in triangular form defining a fluid conduit for transfer of the fluid using piping 16 therein between the two structures (page 5, lines 7-30). Thrust means 19 are attached to the free end of the arm 13 in order to rotate the arm 13 relative to the first structure 10 preferably about a vertical axis. The arm 13 may be located underwater at a depth greater than the maximum draught of both the first and second vessels (page 5, lines 27-30) or alternatively may extend between the two structures 10, 11 while floating on the surface of the water. In second and third embodiments, the first structure 22, is mounted on the seabed and extends therefrom to

above the water surface for mooring with a vessel 11. (Page 2, lines 12-15 and page 8, lines 16-27)

Considering the foregoing description of the fluid transfer apparatus in the '196 reference, Applicants respectfully disagree with the Examiner's assertion that the rigid arm 13 of the '196 reference is equivalent to the semi-submerged floating dock of Applicants' invention. Unlike Applicants' present invention, the '196 reference shows a rigid triangular shaped arm defining a conduit for fluid transfer. The rigid arm is either located at a depth greater than the draught of both floating vessels or on the water surface extended between each. The arm 13 in the '196 reference functions as a support conduit for fluid transfer, unlike Applicants' present invention which is a loading dock for floating vessels.

With respect to claiming a single point mooring system, Applicants assume from the rejections that the Examiner refers to vessel 10 of the '196 reference as being equivalent to a single point mooring system claimed in claim 1. As described in this reference, the vessel 10 is typically either a ship or an oil rig. Applicants respectfully disagree with the Examiner in equating a single point mooring system to the complex structure of either a ship or an oil rig as contemplated by the '196 reference. Such an assertion is unsupported within the '196 reference as a floating vessel 10 is not described as a single point mooring system nor is a single point mooring taught or suggested in the reference.

Additionally, Applicants also assume the Examiner regards the rigid connecting arm of claim 1 as equivalent to the vessel 10 of the '196 reference with a vertical structure connecting the submerged arm 13 to the vessel 10. Applicant, therefore, respectfully believes it is inappropriate to compare the rigid arm 3 of the present invention with a structure as complicated as the entire vessel 10 in the '196 reference. As previously commented, the vessel 10 of the '196 reference is typically a ship or oil rig serving as a fluid source for transfer to another vessel 11 (page 4, line 32 – page 5, line 4). No where

in the '196 reference does it describe the vessel 10 as functioning as a connector arm to a dock.

Thus, the '196 reference lacks each and every element of claim 1 and cannot be cited as an appropriate reference under 102(b) as anticipating the claim nor under 103(a) or rendering the obviousness. Furthermore, none of the cited prior art motivates or suggests to one skilled in the art to combine the limitations of each to arrive at Applicants' mooring apparatus.

Claims 2- 12 depend on claim 1 and are patentable for the same reasons.

Additionally, claim 3 is patentable for its own reasons as it further includes at least one thrust producing device mounted to the dock facilitating movement of the dock relative to the single point mooring system or the stationary earth. While Applicant agrees that '196 shows thrusters 21 and thrust means 19, these elements are not in conjunction with a floating dock attached by rigid arms to a single point mooring system. Unlike Applicant's present invention, the '196 reference instead teaches thrust means attached to a rigid arm/fluid conduit facilitating movement of the arm/conduit. Thus, the '196 reference also fails to teach or suggest each and every element claimed in claim 3 and is an inappropriate reference for rejecting the claim under 35 U.S.C. 102(b) or 35 U.S.C. 103.

Claim 4 also depends from claim 1 and further claims variable buoyancy means to raise and lower the level of the dock in the water. Unlike Applicant's invention, the float means 19 in the '196 reference do not teach or suggest variable buoyancy means making it an inappropriate reference to anticipate claim 4. Thus, claim 4 is also patentable over this reference.

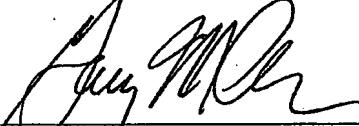
From the foregoing, it is clear that Applicant has made a significant contribution to the art and it is believed that the claims in the case are in condition for allowance and early notice thereof is respectfully requested.

If any fees are due, please charge our Deposit Account No. 21-0800.

Respectfully submitted,

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